

Making our HTML Look Nicer

Cascading Style Sheets

Chapter 2

Supporting Material for “Using Google App Engine” - O'Reilly and Associates
www.appspotbook.com



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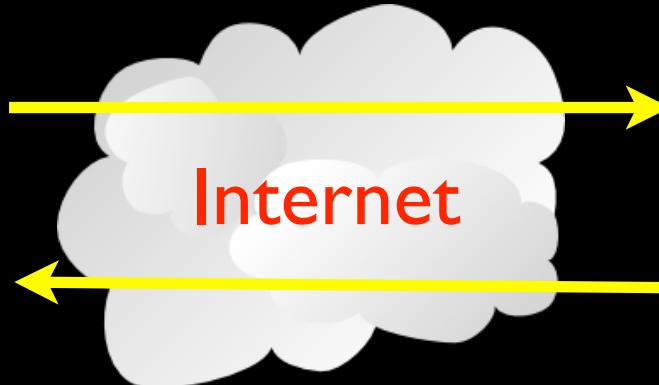
<http://creativecommons.org/licenses/by/3.0/>.

Copyright 2009, Charles Severance





HTML JavaScript
AJAX CSS



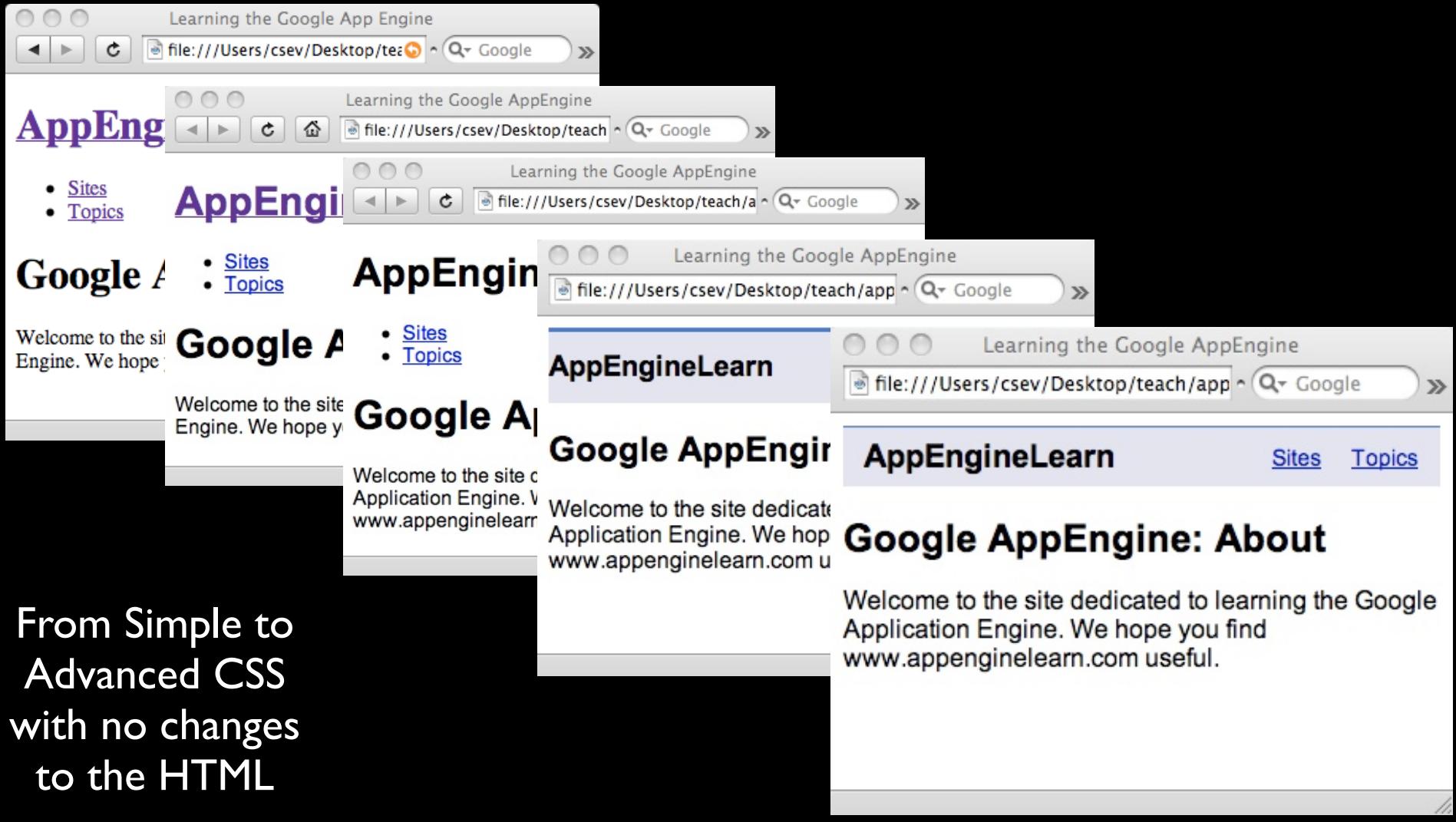
HTTP Request
Response GET
 POST



Python Data Store
Templates memcache

CSS Already?

- Back in the ancient days (i.e. before 2007) we got used to thinking that CSS was “advanced HTML” and that it was “difficult”
- With modern browsers, we should never bother with the old ways to change font, color, alignment, etc etc.
- CSS - Just Do It!

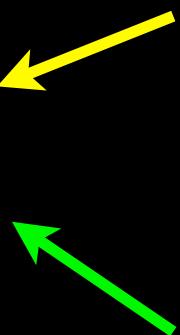


The big picture...



In the modern era of web design
we represent content and
meaning in HTML and formatting
and layout in CSS.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
<title>University of Michigan</title>
...
```



```
@import "/CSS/graphical.css"/**/;
p.text strong, .verbose, .verbose p, .verbose h2{text-
indent:-876em;position:absolute}
p.text strong a{text-decoration:none}
p.text em{font-weight:bold;font-style:normal}
div.alert{background:#eee;border:1px solid red;padding:-
5em;margin:0 25%}
a img{border:none}
.hot br, .quick br, dl.feature2 img{display:none}
div#main label, legend{font-weight:bold}
```

Separation of concerns / specialization

Developer

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
<title>University of Michigan</title>
...
...
```

Designer

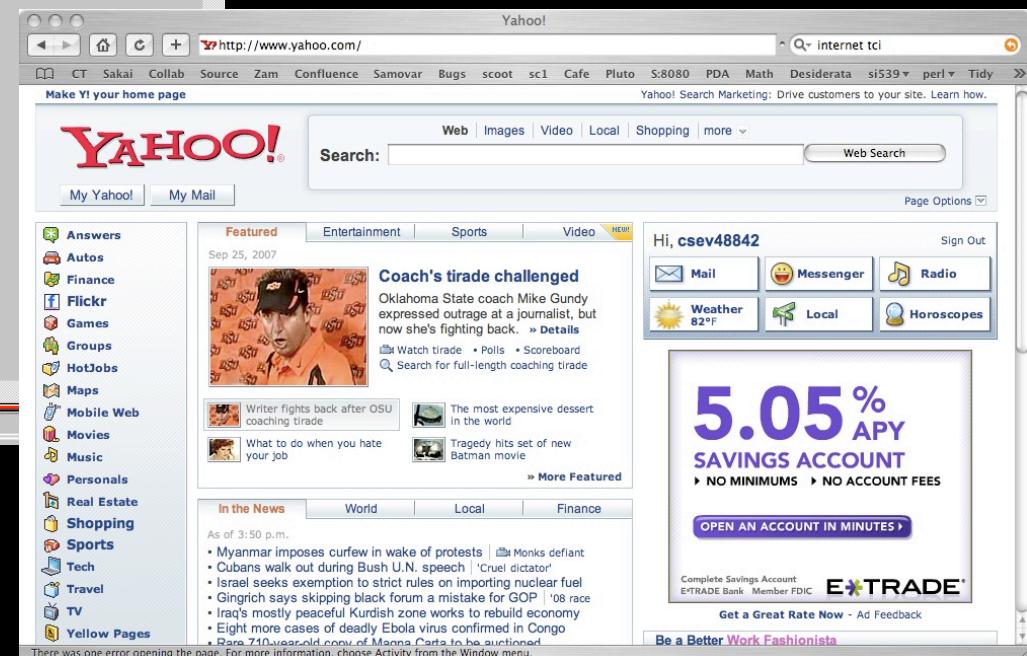
```
@import "/CSS/graphical.css"/**/;
p.text strong, .verbose, .verbose p, .verbose h2{text-indent:-876em;position:absolute}
p.text strong a{text-decoration:none}
p.text em{font-weight:bold;font-style:normal}
div.alert{background:#eee;border:1px solid
...
...
```

Everyone needs to know some HTML and some CSS and some programming - but to be truly skilled at a professional level requires deep understanding and specialization.



1995

2007



HTML has evolved a *lot* over the years - as computers and networks have gotten faster.

CSS Syntax

- CSS Syntax is very different than HTML
- CSS is a set of “rules” which include a “**selector**” and one or more “**properties**” and “**values**” as well as some punctuation...

```
body {  
    font-family: arial, sans-serif;  
}
```

Anatomy of a CSS Rule

selector - which part of the document does this rule apply to

```
body {  
    font-family: arial, sans-serif;  
    font-size: 100%;  
}
```

property - which aspect of CSS are we changing

value - What are we setting the property to.

Partial List of CSS Properties

color
background-color
visibility (visible/hidden)
font-family (arial, sans-serif)
 font-size
 font-style (italic, normal)
 font-weight (bold, normal)
 text-align
 vertical-align
text-transform (lowercase, etc)

text-decoration
border-width
border-style
border-color
margin
border
padding
float (left, right, none)
 left / top
position (static, relative, absolute)
z-index

<http://lesliefranke.com/files/reference/csscheatsheet.html>

Applying CSS to our HTML

- **Inline** - right on an HTML tag - using the `style=` attribute
- An **embedded style sheet** in the `<head>` of the document
- As **external style sheet** in a separate file

Inline Styles

```
<p>Google AppEngine is scalable.</p>
<p style="color: red; font-weight: bold;">
Don't forget it is free (for small sites).</p>
<p style="font-family: sans-serif;
background-color: green">
Google AppEngine is easy to learn.</p>
```

We add a **style=** attribute to a tag. We can have one or more properties and values. The styling applies for the scope of the tag.

Google AppEngine is scalable.

Don't forget it is free (for small sites).

Google AppEngine is easy to learn.

```
<head>
  <title>Learning the Google App Engine</title>
  <style type="text/css">
    body {
      font-family: arial, sans-serif;
    }
  </style>
</head>
<body>
  <h1><a href="index.htm">
    AppEngineLearn</a></h1>
  ....
</body>
```

The **selector** in the CSS rule indicates **where** in the displayed content is to be “styled” according to the properties.



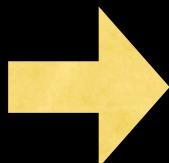
External Style Sheet

- Preferred because it allows easy switching of style across many files.
- On larger teams, it also allows separation of concerns between the developer (HTML) and designer (CSS)

```
<head>
  <title>Learning the Google App Engine</title>
  <link type="text/css" rel="stylesheet" href="glike.css">
</head>
<body>
```

....

```
csev $ ls -l
total 32
-rw-r--r-- 1 csev staff 44 Dec 19 06:06 glike.css
-rw-r--r-- 1 csev staff 679 Dec 19 06:07 index.htm
-rw-r--r-- 1 csev staff 883 Dec 19 05:59 sites.htm
-rw-r--r-- 1 csev staff 679 Dec 19 05:59 topics.htm
csev $
```



First: Just work with the tags and fix fonts / colors

```
<head>
  <title>Learning the Google App Engine</title>
  <link type="text/css" rel="stylesheet" href="glike.css">
</head>
<body>
  ....
    

body {
        font-family: arial, sans-serif;
      }
      a {
        color: blue;
      }
      h1 a {
        text-decoration: none;
        color: black;
      }


```



```
<head>
  <title>Learning the Google App Engine</title>
  <link type="text/css" rel="stylesheet" href="glike.css">
</head>
<body>
  <h1><a href="index.htm">
    AppEngineLearn</a></h1>
  <ul>
    <li><a href="sites.htm">Sites</a></li>
    <li><a href="topics.htm" >Topics</a></li>
  </ul>
  <h1>Google App Engine:About</h1>
```

Select all “a” tags in the document.



```
a {
  color: blue;
}
```

```
<head>
  <title>Learning the Google App Engine</title>
  <link type="text/css" rel="stylesheet" href="glike.css">
</head>
<body>
  <h1><a href="index.htm">
    AppEngineLearn</a></h1>
  <ul>
    <li><a href="sites.htm">Sites</a></li>
    <li><a href="topics.htm" >Topics</a></li>
  </ul>
  <h1>Google App Engine:About</h1>
```

Select tags where “a” is inside “h1”.



```
h1 a {
  text-decoration: none;
  color: black;
}
```

Marking Text for Styling

- Sometimes we cannot use an existing tag in the document for styling so we use the **span** tag
- Sometimes we want to apply styling to *some* but all of the “p” tags using the **class=** attribute
- Sometimes we want to break the document into “chunks” using the **id=** attribute

The “un-tag”

```
<p>Google AppEngine is scalable  
and <span style="color: red">don't  
forget</span> that it is free  
for small sites and is easy to learn.</p>
```

Span does *not* break word
wrapping - it simply allows us to
apply styling to a segment of text
within a paragraph.

Google AppEngine is scalable
and **don't forget** that it is free for
small sites and is easy to learn.

Making Some Tags Special

- We can use the `class=` to mark tags and then apply styling specifically to **those** tags.
- We style these sections by writing a rule which starts with a **period followed by the name of the class**

```
<head>
<style type="text/css">
  .abc {
    color: blue;
  }
</style>
</head>
<body>
<p class="abc">First paragraph</p>
<p>Second Paragraph</p>
<p class="abc">Third paragraph</p>
</body>
```

Making Some Tags Special

First paragraph

Second Paragraph

Third paragraph

```
<head>
  <style type="text/css">
    .abc {
      color: blue;
    }
  </style>
</head>
<body>
  <p class="abc">First paragraph</p>
  <p>Second Paragraph</p>
  <p class="abc">Third paragraph</p>
</body>
```

Defining and Marking Blocks

- To mark out the scope of blocks, we use the `id=` attribute on a tag.
- We also have a new block tag called `<div>` that we often couple with the `id=` attribute on the `div` or other tag
- While the `class=` attribute can be (re)used over and over on many tags in a document, a particular `id=` value can only be used once in a document.
- `id=` is used to mark a *particular* block in the document

```
<body>
  <div id="header">
    <h1><a href="index.htm">AppEngineLearn</a></h1>
    <ul>
      <li><a href="sites.htm">Sites</a></li>
      <li><a href="topics.htm" >Topics</a></li>
    </ul>
  </div>
  <div id="content">
    <h2>Google App Engine:About</h2>
    <p>
      Welcome to the site dedicated to
      learning the Google Application Engine.
      We hope you find www.appspotenginelearn.com useful.
    </p>
  </div>
</body>
```

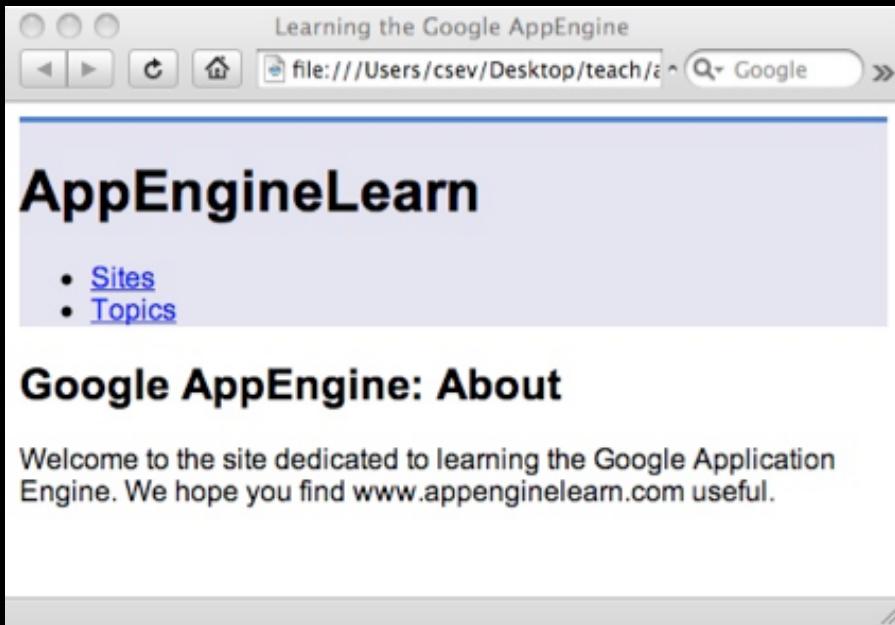
```
<div id="header">
  <h1><a href="index.htm">AppEngineLearn</a></h1>
  <ul>
    <li><a href="sites.htm">Sites</a></li>
    <li><a href="topics.htm" >Topics</a></li>
  </ul>
</div>
```

To apply styling rules to a block of text identified using `id=` we use a `#` character before the id value.

```
#header {
  background-color: #dde;
  border-top: 3px solid #36c;
}
```

```
<body>
  <div id="header">
    <h1><a href="index.htm">AppEngineLearn</a></h1>
    <ul>
      <li><a href="sites.htm">Sites</a></li>
      <li><a href="topics.htm" >Topics</a></li>
    </ul>
  </div>
  <div id="content">
    <h2>Google App Engine:About</h2>
    <p>
      Welcome to the site dedicated to
      learning the Google Application Engine.
      We hope you find www.appspotenginelearn.com useful.
    </p>
  </div>
</body>
```

```
body {
  font-family: arial, sans-serif;
}
#header {
  background-color: #dde;
  border-top: 3px solid #36c;
}
a {
  color: blue;
}
#header h1 a {
  text-decoration: none;
  color: black;
}
```



```
body {  
    font-family: arial, sans-serif;  
}  
#header {  
    background-color: #dde;  
    border-top: 3px solid #36c;  
}  
a {  
    color: blue;  
}  
#header h1 a {  
    text-decoration: none;  
    color: black;  
}
```

Don't Overuse Span/Div

- Don't add unnecessary div tags when you already have a block tag to add a class to
- Don't invent your own spans when something exists that will work

```
<div class="important">  
<p>  
    This is  
    <span class="heavy">a</span>  
    paragraph.  
</p>  
</div>
```

```
<p class="important">  
    This is <strong>a</strong>  
    paragraph.  
</p>
```

Color Names

- W3C has listed 16 color names that will validate with an HTML validator.
- The color names are: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow.

Color Values

HTML colors can be defined as a hexadecimal notation for the combination of Red, Green, and Blue color values (RGB).

The lowest value that can be given to one light source is 0 (hex #00) and the highest value is 255 (hex #FF).

The table below shows the result of combining Red, Green, and Blue light sources::

Color	Color HEX	Color RGB
black	#000000	rgb(0,0,0)
red	#FF0000	rgb(255,0,0)
green	#00FF00	rgb(0,255,0)
blue	#0000FF	rgb(0,0,255)
yellow	#FFFF00	rgb(255,255,0)
cyan	#00FFFF	rgb(0,255,255)
magenta	#FF00FF	rgb(255,0,255)
gray	#C0C0C0	rgb(192,192,192)
white	#FFFFFF	rgb(255,255,255)

W3C Standard Color Names

W3C has listed 16 color names that will validate with an HTML validator.

The color names are: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow.

http://www.w3schools.com/html/html_colors.asp

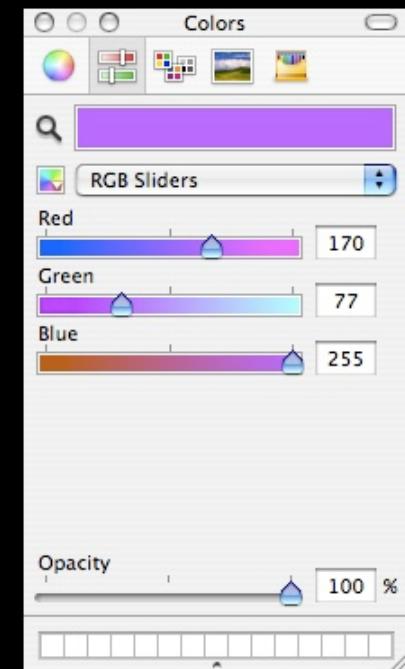
Colors...

Three Numbers,
Red, Green , and
Blue - each from 00
- FF (Hexidecimal)

#ffffff = white
#000000 = black
#ff0000 = red
#00ff00 = green
#0000ff = blue

#e2edff

Color Name	Color HEX	Color
AliceBlue	#F0F8FF	
AntiqueWhite	#FAEBD7	
Aqua	#00FFFF	
Aquamarine	#7FFFDD	
Azure	#F0FFFF	
Beige	#F5F5DC	
Bisque	#FFE4C4	
Black	#000000	
BlanchedAlmond	#FFEBCD	
Blue	#0000FF	
BlueViolet	#8A2BE2	
Brown	#A52A2A	
CadetBlue	#5B82BA	
Coral	#FF7043	
Cream	#F5E7B1	
DodgerBlue	#1E90FF	
Fuchsia	#FF00FF	
Gold	#FFDAB9	
GreenYellow	#ADFF2F	
Grey	#CCCCCC	
Khaki	#F0E68C	
Lavender	#E6EAF2	
LightBlue	#ADD8E6	
LightGreen	#90EE90	
LightPink	#FFB6C1	
Magenta	#FF00FF	
OliveDrab	#8A8A2B	
PaleGreen	#90EE90	
Pink	#FFB6C1	
Teal	#008080	
Violet	#9370DB	
Yellow	#FFFF00	



Web-safe
colors

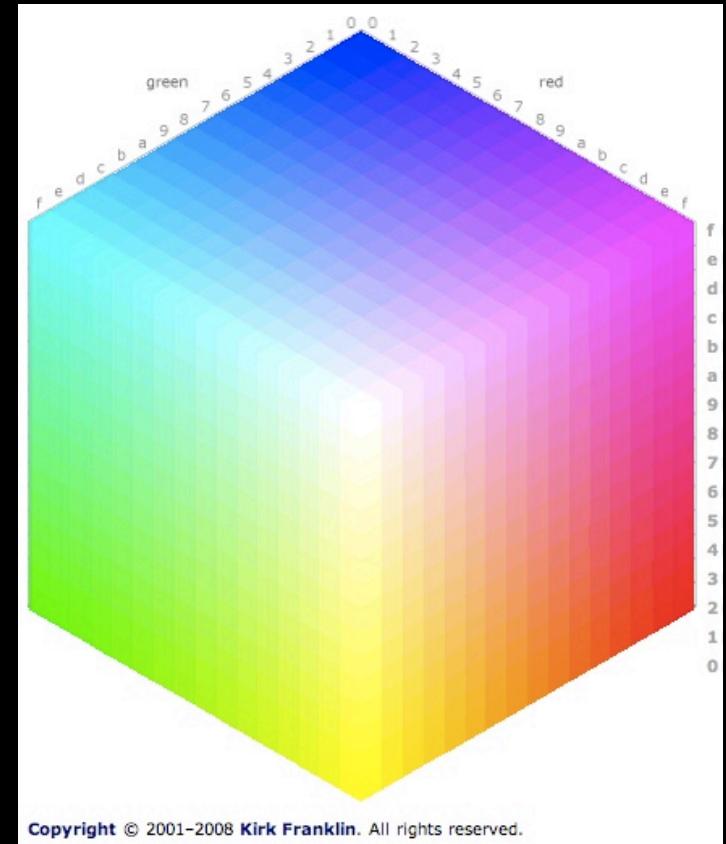
http://www.w3schools.com/css/css_colornames.asp

Web-Smart Colors

- Web-smart colors are 4096 colors which should easily display accurately on all systems with > 256 colors
- Web smart colors simply use any combination of 00, 11, 22, ... cc, dd, ee, ff
- #0055ee

<http://www.morecrayons.com/palettes/webSmart>

<http://www.weborum.com/color/wheel.html>



kuler

<http://kuler.adobe.com/#create/fromacolor>

kuler

Register Sign In

Create

From a Color

From an Image

Themes

Community

Pulse BETA

Links

Select a Rule

Analogous

Monochromatic

Triad

Complementary

Compound

Shades

Custom

Title:

Save

Public Private

Tags:

Please sign in to save your theme.

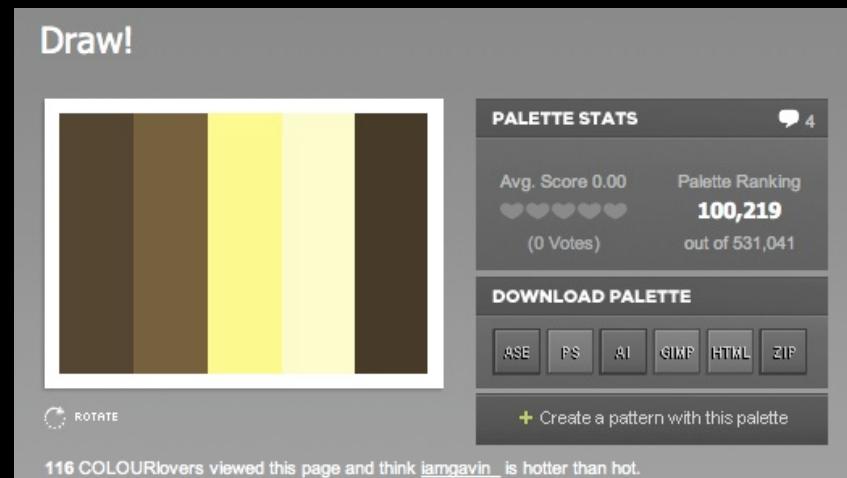
Base Color

HSV 246 90 80	HSV 24 90 70	HSV 113 90 100	HSV 24 100 100	HSV 246 95 70
RGB 38 20 204	RGB 178 81 18	RGB 51 255 25	RGB 255 100 0	RGB 25 9 178
CMYK 81 90 0 20	CMYK 0 55 90 30	CMYK 80 0 90 0	CMYK 0 61 100 0	CMYK 86 95 0 30

One error in opening the page. For more information, choose Window > Activity.

<http://www.colourlovers.com/>

- Picking a combination of complimentary colors is also important - not all colors look good together
- This is a very artistic thing :)



Fonts

- Default fonts are ugly and they have Serifs - which make them harder to read on a screen
- So the first thing I usually want to do is override the font in my document
- And I want to do this everywhere.

Header One

Paragraph about ugly default fonts.

Figure 3.5. Highlighting the serifs of a serif font (Georgia)



The word "serif" is written in a serif font. Each of the four letters (s, e, r, i, f) has its characteristic serif strokes highlighted with a small black circle. The letter "s" has two circles at the top right and one at the bottom left. The letter "e" has a circle at the top right. The letter "r" has a circle at the top left. The letter "i" has a circle at the top. The letter "f" has two circles at the top right.

Fonts

```
body {  
    font-family: "Trebuchet MS", Helvetica, Arial, sans-serif;  
    font-size: x-large;  
}  
  
    Most Favourite  
    Least Favourite
```

Fallback fonts: serif, sans-serif, monospace, cursive and fantasy.

Font Factors

font-size:

xx-small

x-small

small

medium

large

x-large

xx-large

14px

font-weight: bold or normal

font-style: normal or italic

none, underline, overline, or
line-through

Styling for Links



Post-Click:

Hello there my name is Chuck.

Go ahead and click on here.

Downright Ugly!

```
a {  
    font-weight: bold;  
}  
a:link {  
    color: black;  
}  
a:visited {  
    color: gray;  
}  
a:hover {  
    text-decoration: none;  
    color: white;  
    background-color: navy;  
}  
a:active {  
    color: aqua;  
    background-color: navy;  
}
```

Styling Links

link - before a visit

visited - after it has been visited

hover - when your mouse is over it
but you have not clicked

active - you have clicked it and you
have not yet see the new page

Browser default styling for links is
downright ugly!

CSS CHEAT SHEET

Shorthand*

background
border
border-bottom
border-left
border-right
border-top
font
list-style
margin
padding

Comments

/* Comment */

Pseudo Selectors

:hover
:active
:focus
:link
:visited
:first-line
:first-letter

Media Types

all
braille
embossed
handheld
print
projection
screen
speech
tty
tv

Units

Length %
em
pt

SYNTAX

Syntax
selector {property: value;}
External Style Sheet
<link rel="stylesheet" type="text/css" href="style.css" />
Internal Style
<style type="text/css">
selector {property: value;}
</style>
Inline Style
<tag style="property: value;">

GENERAL

Class	String preceded by a period
ID	String preceded by a hash mark
div	Formats structure or block of text
span	Inline formatting
color	Foreground color
cursor	Appearance of the cursor
display	block; inline; list-item; none
overflow	How content overflowing its box is handled
visibility	visible, hidden

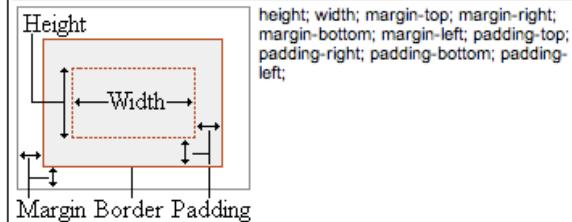
FONT

font-style	Italic, normal
font-variant	normal, small-caps
font-weight	bold, normal, lighter, bolder, integer (100-900)
font-size	Size of the font
font-family	Specific font(s) to be used

TEXT

letter-spacing	Space between letters
line-height	Vertical distance between baselines

BOX MODEL



BORDER

border-width	Width of the border
border-style	dashed; dotted; double; groove; inset; outset; ridge; solid; none
border-color	Color of the border

POSITION

clear	Any floating elements around the element?
float	Floating elements around the element?
left	The left position of an element
top	The top position of an element
position	static, relative, absolute
z-index	Element above or below overlapping elements?

BACKGROUND

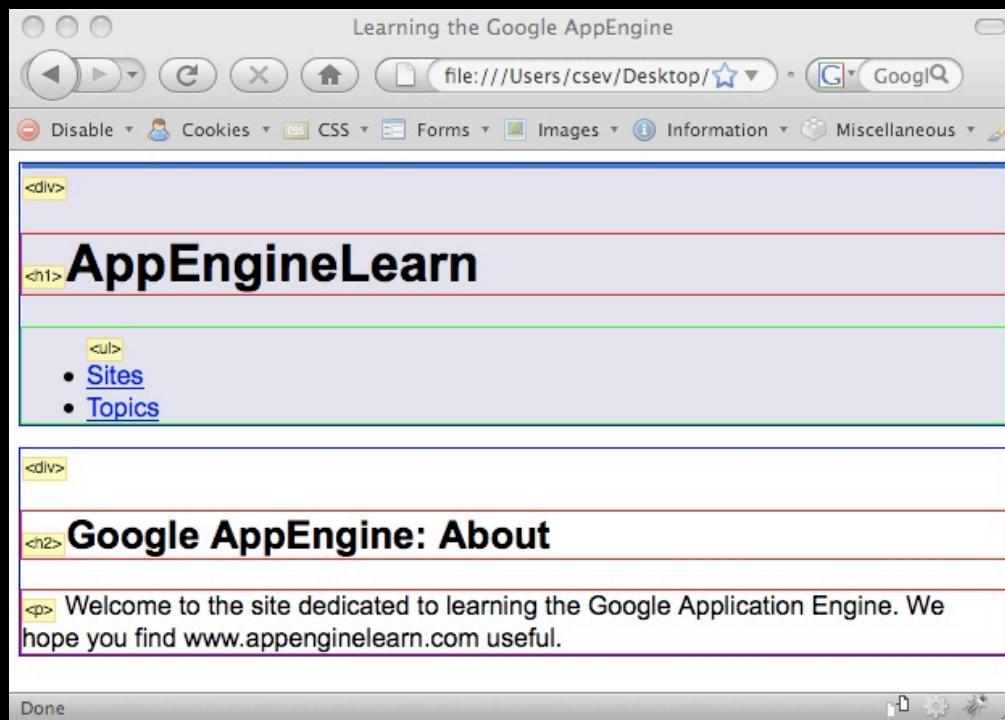
background-color	Background color
background-image	Background image
background-repeat	Background repeat

<http://www.lesliefranke.com/files/reference/csscheatsheet.html>

Web Developer Tools

- You pretty much need to use Firefox for serious website development
- Important plugins:
 - Web Developer - Chris Pedrick
 - FireBug - Joe Hewitt

<http://addons.mozilla.org/>



Using the Firefox Web Developer Plugin you can see the blocks which make up your page.

dr-chuck.com

Latest Headlines Sakai dr-chuck.com NWA Chuck's Media Sakai Based Service... iPhone Navigation Personal Learning an...

Disable Cookies CSS Forms Images Information Miscellaneous Outline Resize Tools View Source Options

 Charles Severance

 This site contains a bunch of stuff including software, tele
miscellaneous material. This also includes a number of activities and s
my good friend Richard Wiggins.

 Recent Video: John Merlin Williams Goes Street Racing
 Recent Video: Dr. Chuck Goes Motocross Racing on hi

Teaching

SI 182 - Building Applications for Information Environments
SI 539 - Design of Complex Web Sites (Rails)
SI 543 - Introductory Programming (Java) (Login)
See also www.rubylearn.com and my raw course podcasts

Web/Multimedia sites

A Film About Brent and His ATV
How to install a hardwood floor in 4 minutes!
Dr. Chuck goes motocross racing (2007)
Dr. Chuck goes stock car racing (2002)
Audition Tape which we sent to TechTV which was rejected :(.
Making a Simple Cartoon Three short animations from Chuck and Brent.
Nuthin' But Net A Television show
NewsTalk 870 - Rich and I were on the radio once per month from the mid 90's through 2004.
More Multimedia Projects...

Software Tools

PHP image software for v300 and Treo-600 SMS
Clipboard-2000 - Distance Education Software
Sync-O-Matic 2000 - Distance Education Software
Other software Tools

Projects

Practical Home Networking - A book that Chuck and Rich almost got written. (Version 1.)

Outline Frames
Outline Headings
Outline Links
Outline Tables
Outline Block Level Elements
 Outline Deprecated Elements
Outline Positioned Elements
Outline Current Element
Outline Custom Elements...

Show Element Names When Outlining

Now Playing on Net TV

Sakai and uPortal at UNISA - Johan van den Berg

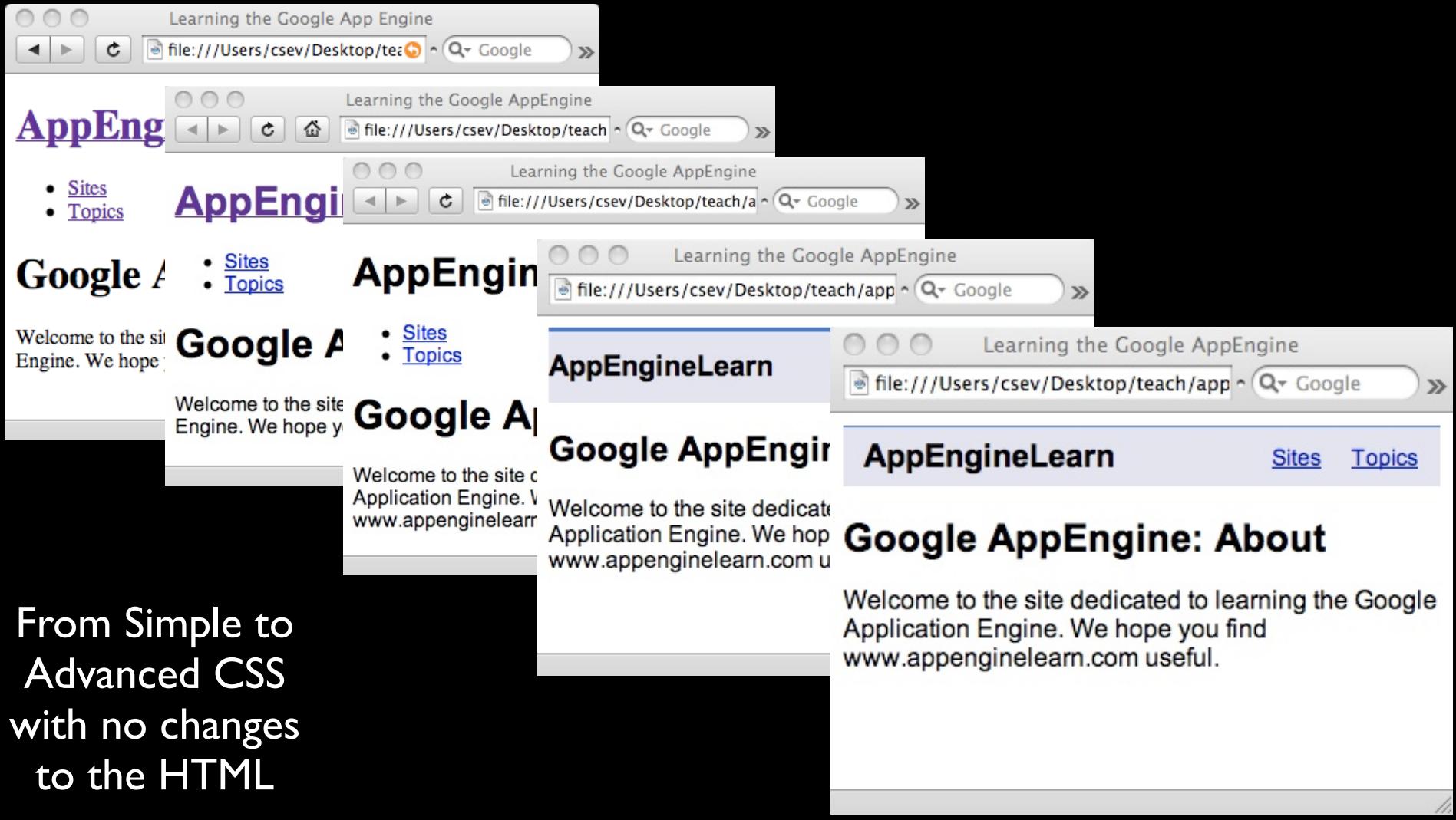
Produced: June 6, 2006 This video was taped while are the Sakai meeeting in Vancouver. Johan discusses their upcoming project to integrate uPortal and Sakai to produce the UNISA campus portal. Johan attended both the Sakai and JA-Sig meetings and described the UNISA approach to both cmmunities. Details: 3 minutes, Windows Media 300 kbps.

This is a randomly selected show

center style="display: flex; justify-content: space-between;">

Done

Changing Page Layout in CSS



Two kinds of elements

- **Inline** - affects how text looks
 - `strong`, `span`
- **Block** - Containers that can be laid out
 - Paragraphs, etc
- CSS can change a tag from inline to block

```
#navigation li {  
    display: inline;  
}
```

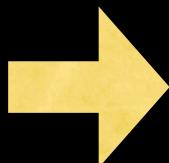
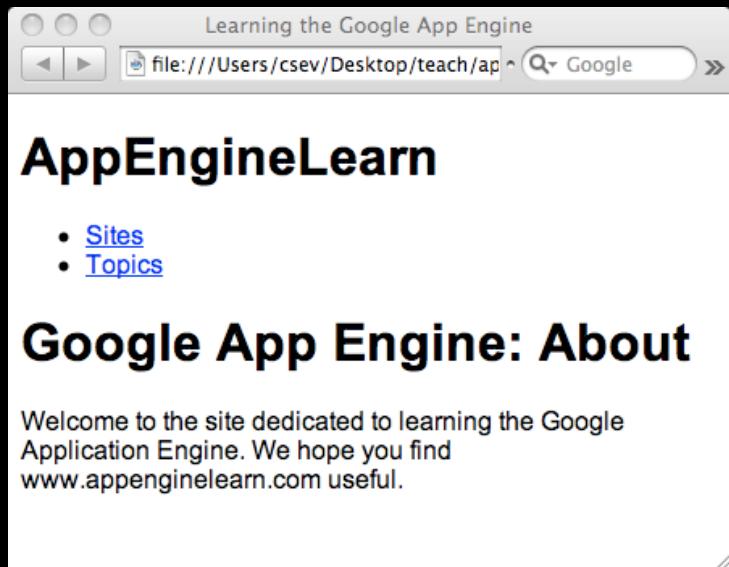
Inline Elements

- Flowed with other text
- span, em, strong, cite, a
- Inline tags can be nested as long as they match
 - <cite>Stuff</cite>
- Block can contain inline - but inline cannot contain block

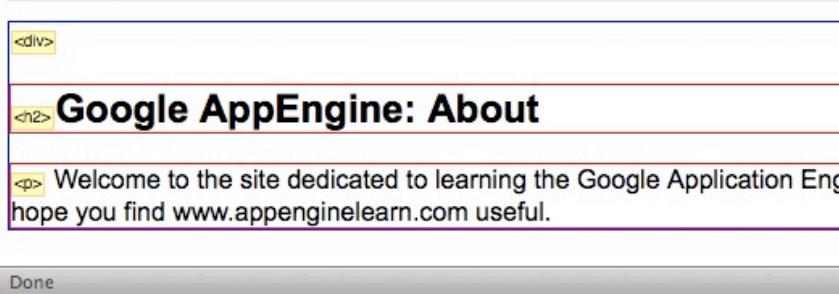
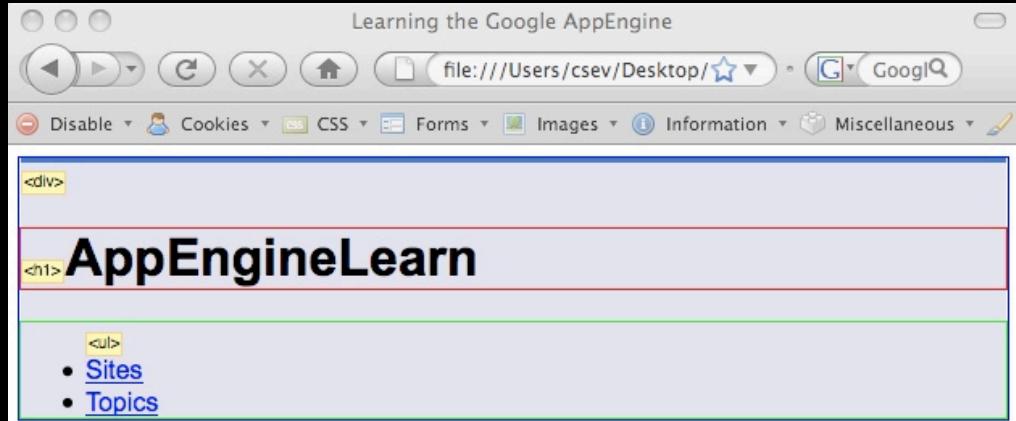
Block Level Elements

- Starts on its own line - ends justification and starts a new block
- Can be a container for other elements
- h1 - h6, p, div, blockquote, ul, ol, form
- Blocks can contain other blocks

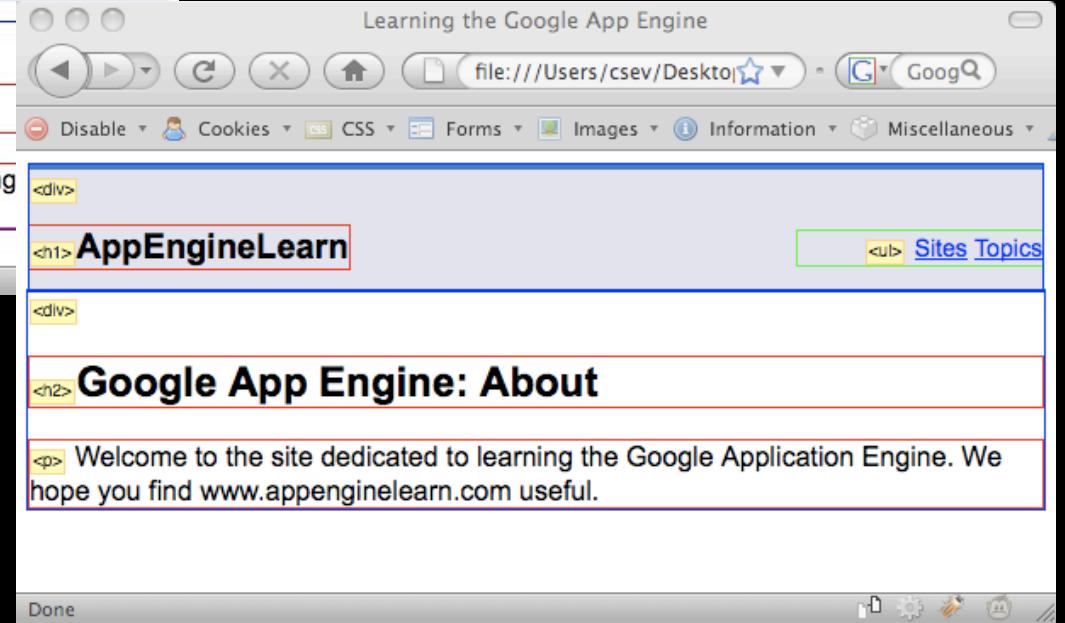
```
<div id="content">
  <p>One </p>
  <p>Two</p>
</div>
```



Now we will move things around, add background and borders, etc.

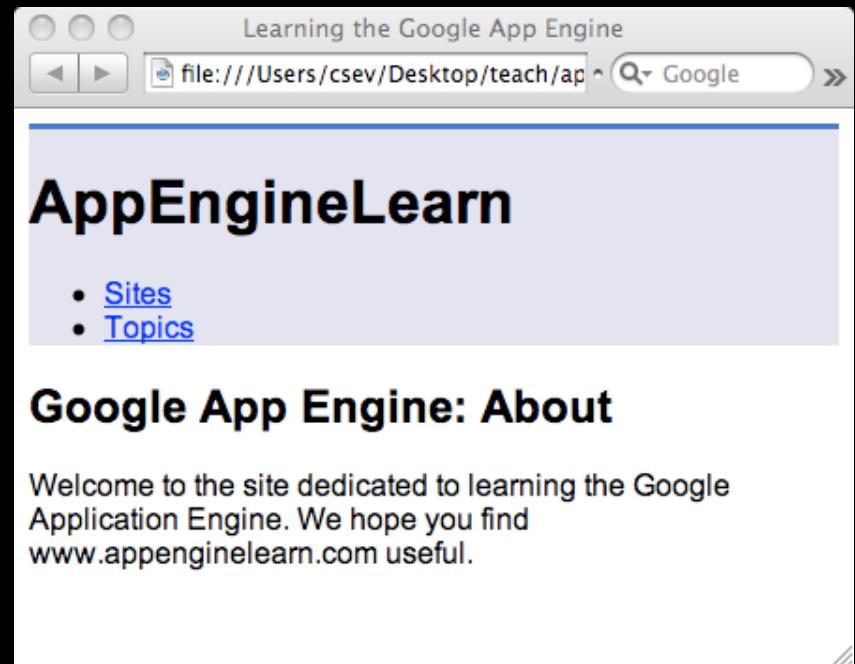


Think of a block as
something to push around
the screen.

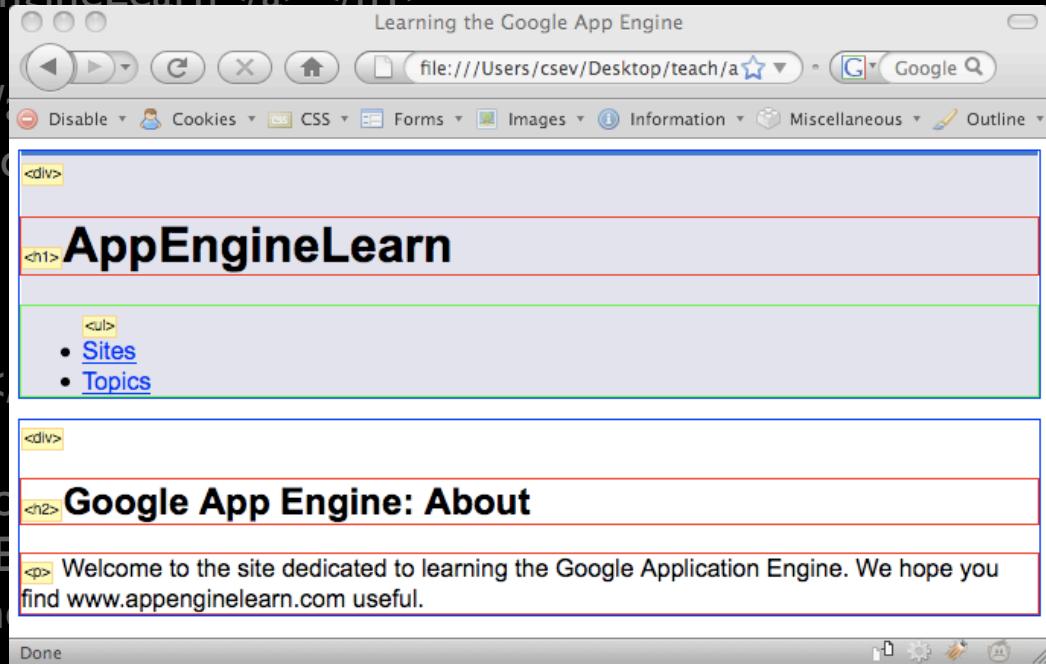


```
<body>
  <div id="header">
    <h1><a href="index.htm">AppEngineLearn</a></h1>
    <ul>
      <li><a href="sites.htm">Sites</a></li>
      <li><a href="topics.htm" >Topics</a></li>
    </ul>
  </div>
  <div id="content">
    <h2>Google App Engine:About</h2>
    <p>
      Welcome to the site dedicated to
      learning the Google Application Engine.
      We hope you find www.appspotenginelearn.com useful.
    </p>
  </div>
</body>
```

```
body {  
    font-family: arial, sans-serif;  
}  
  
#header {  
    background-color: #dde;  
    border-top: 3px solid #36c;  
}  
  
a{  
    color: blue;  
}  
  
#header h1 a {  
    text-decoration: none;  
    color: black;  
}
```

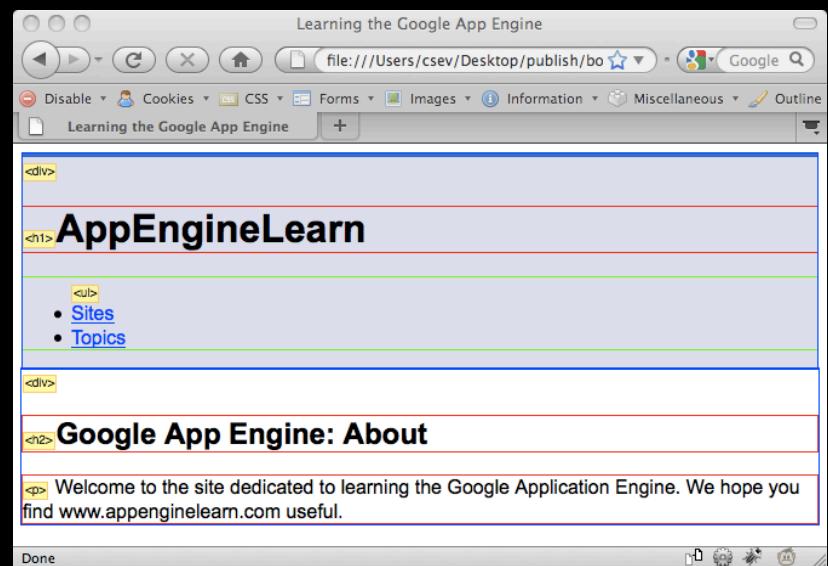


```
<body>
  <div id="header">
    <h1><a href="index.htm">AppEngineLearn</a></h1>
    <ul>
      <li><a href="sites.htm">Sites</a>
      <li><a href="topics.htm" >Topics</a>
    </ul>
  </div>
  <div id="content">
    <h2>Google App Engine:About</h2>
    <p>
      Welcome to the site dedicated to learning the Google Application Engine. We hope you find www.appspot.com useful.
    </p>
  </div>
</body>
```

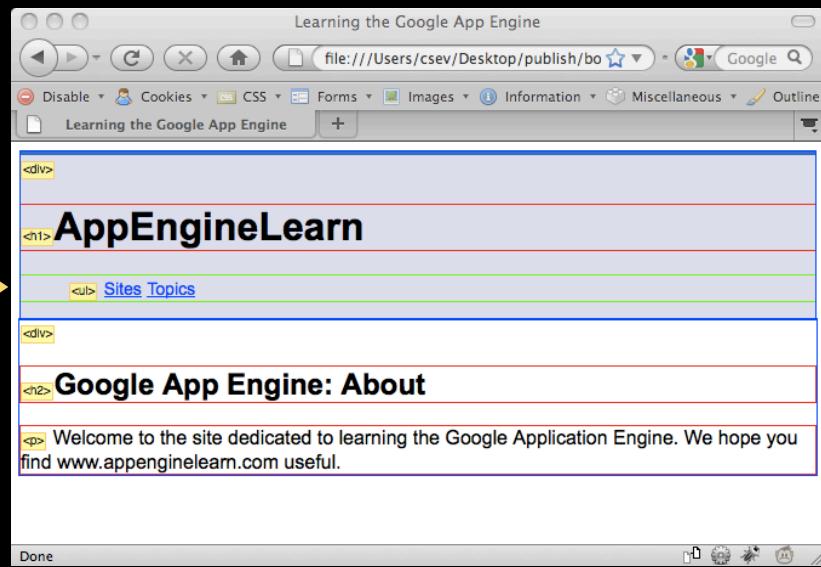
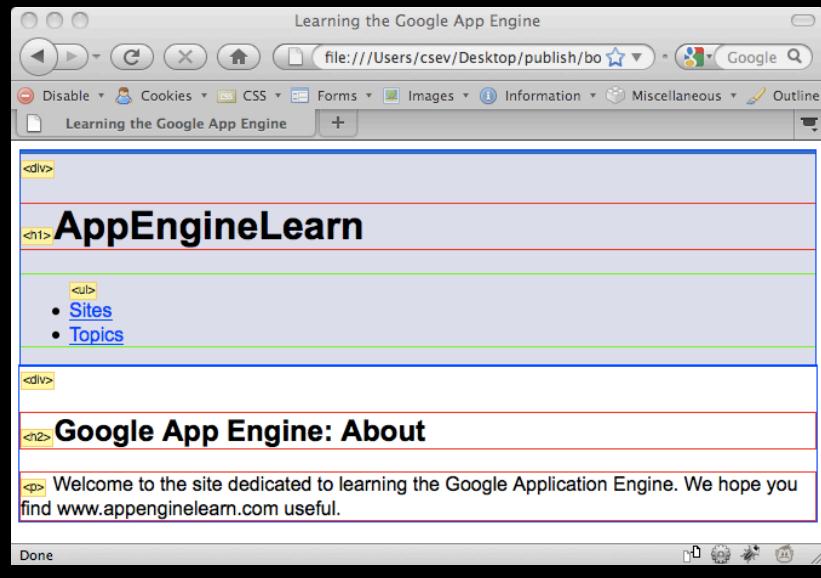
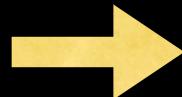


Next we will move these blocks around.

```
#header {  
    background-color: #dde;  
    border-top: 3px solid #36c;  
    height: 100%;  
    overflow:hidden;  
}
```



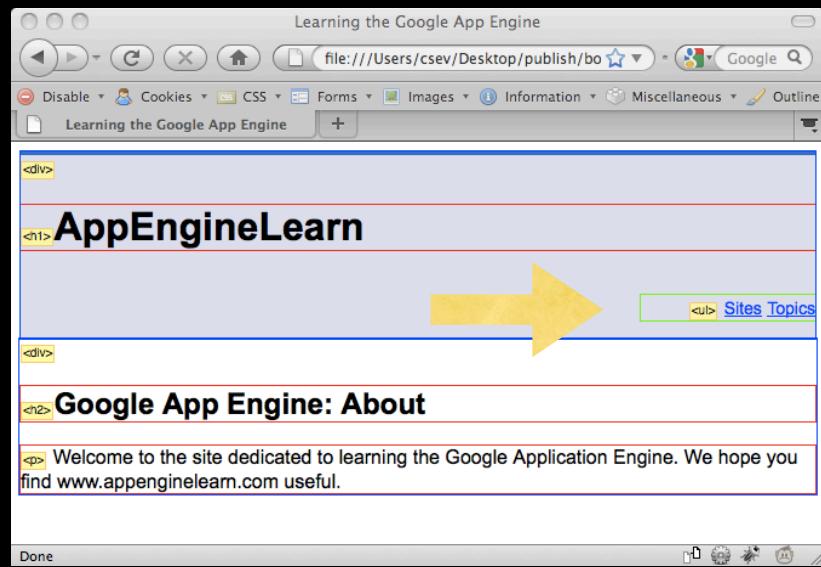
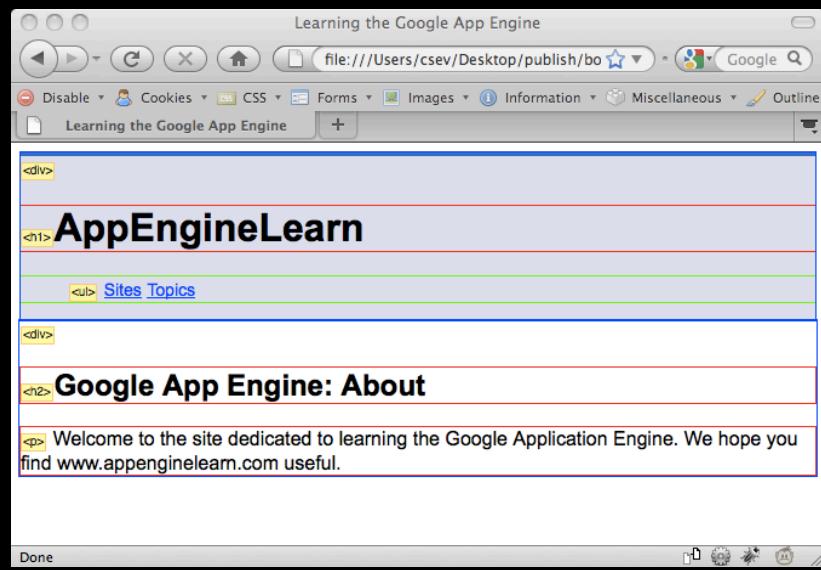
```
#header {  
    background-color: #dde;  
    border-top: 3px solid #36c;  
    height: 100%;  
    overflow:hidden;  
}  
  
#header li {  
    font-size: 14px;  
    display: inline;  
}
```



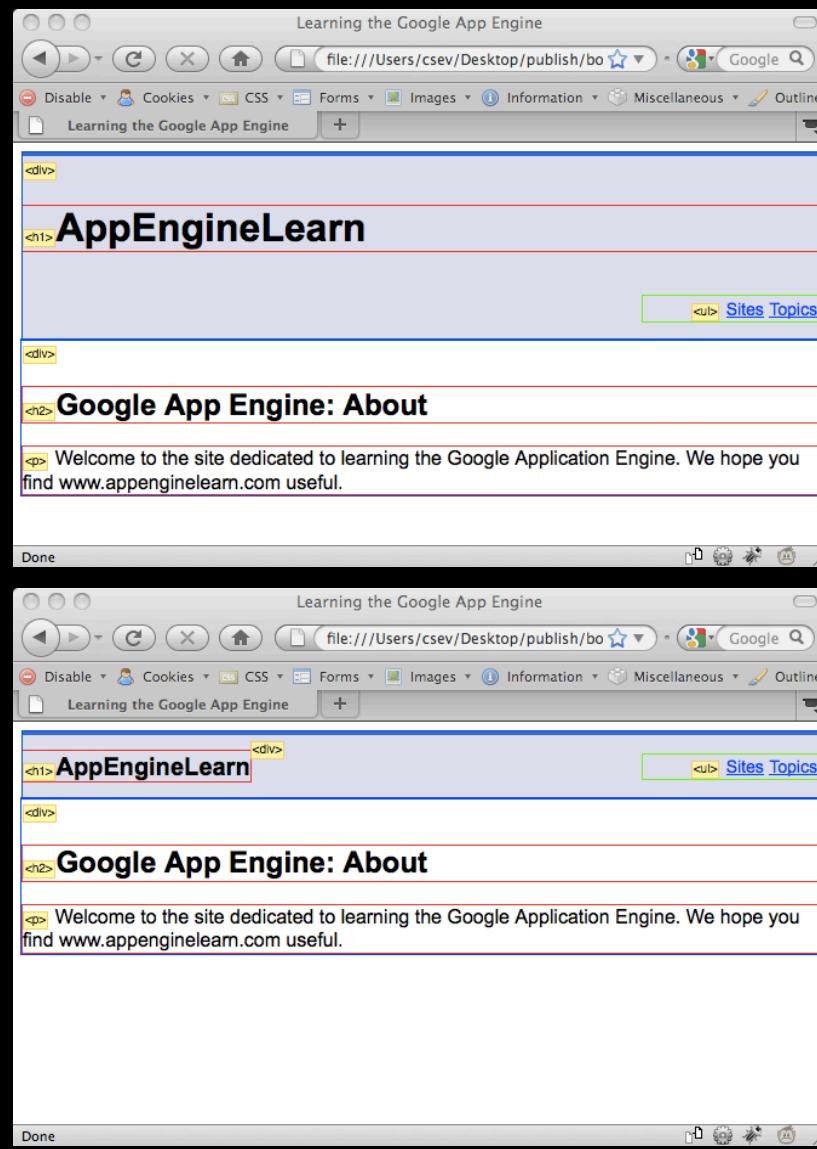
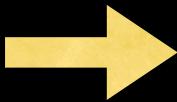
```

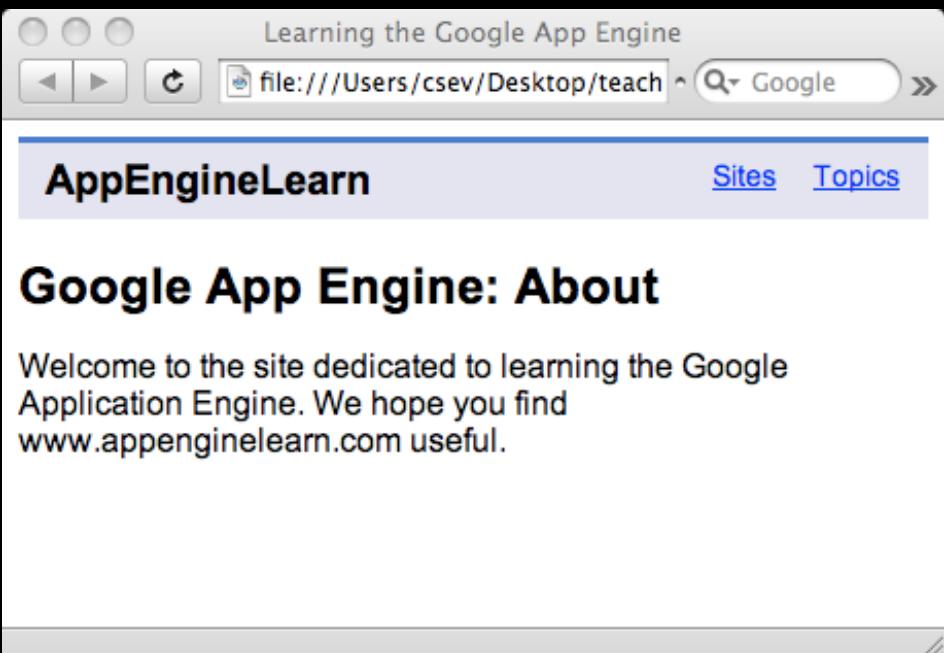
#header {
    background-color: #dde;
    border-top: 3px solid #36c;
    height: 100%;
    overflow:hidden;
}
#header li {
    font-size: 14px;
    display: inline;
}
#header ul {
    list-style: none;
    float:right;
    vertical-align: middle;
}

```



```
#header {  
    background-color: #dde;  
    border-top: 3px solid #36c;  
    height: 100%;  
    overflow:hidden;  
}  
  
#header li {  
    font-size: 14px;  
    display: inline;  
}  
  
#header ul {  
    list-style: none;  
    float:right;  
    vertical-align: middle;  
}  
  
#header h1 {  
    font-size: 20px;  
    float: left;  
    vertical-align: middle;  
}
```





Now lets do some “tweaking” to make it more visually pleasing...

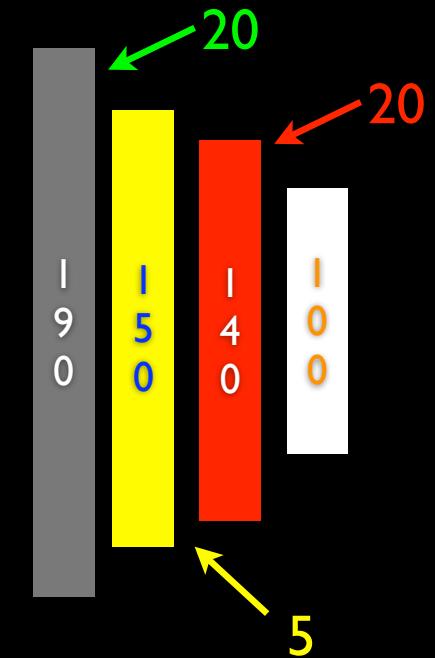
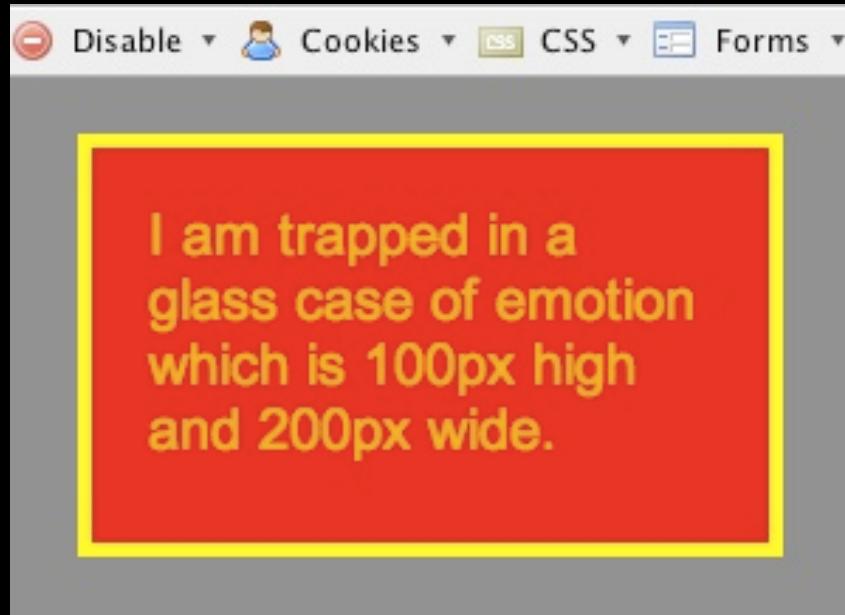
CSS Box Model

- **height** and **width** properties size the block element
- **margin** properties define the space around the block element
- **border** properties define the borders around a block element
- **padding** properties define the space between the element border and the element content
- **background** properties allow you to control the background color of an element, set an image as the background, repeat a background image vertically or horizontally, and position an image on a page

<http://reference.sitepoint.com/css/boxmodel>

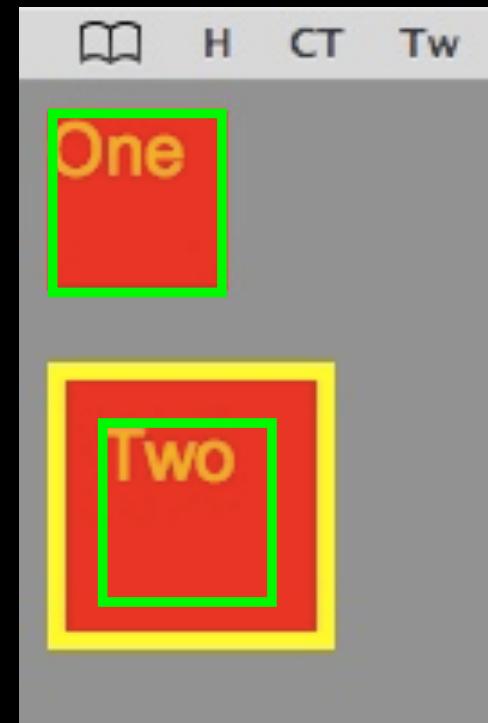
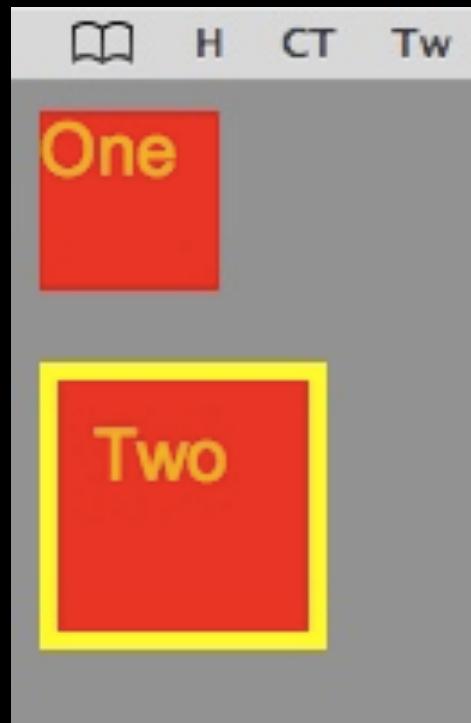
```
.trapped {  
height: 100px;  
width: 200px;  
background:red;  
padding: 20px;  
border: 5px solid yellow;  
margin: 20px;  
font-family:Arial;  
color:orange;  
font-size:20px;  
}
```

```
<p class="trapped">  
I am trapped in a glass case of emotion  
which is 100px high and 200px wide.  
</p>
```



The Box Model

```
.trapped {  
    height: 50px;  
    width: 50px;  
}  
.trapped2 {  
    height: 50px;  
    width: 50px;  
    padding: 10px;  
    border: 5px solid yellow;  
}  
  
<p class="trapped">  
One</p>  
<p class="trapped2">  
Two</p>
```



Border, padding, and margin are additive.

```

#header {
    background-color:#dde;
    border-top: 3px solid #36c;
    height: 100%;
    overflow:hidden;
    padding: 7px;
    margin-top: 5px;
}

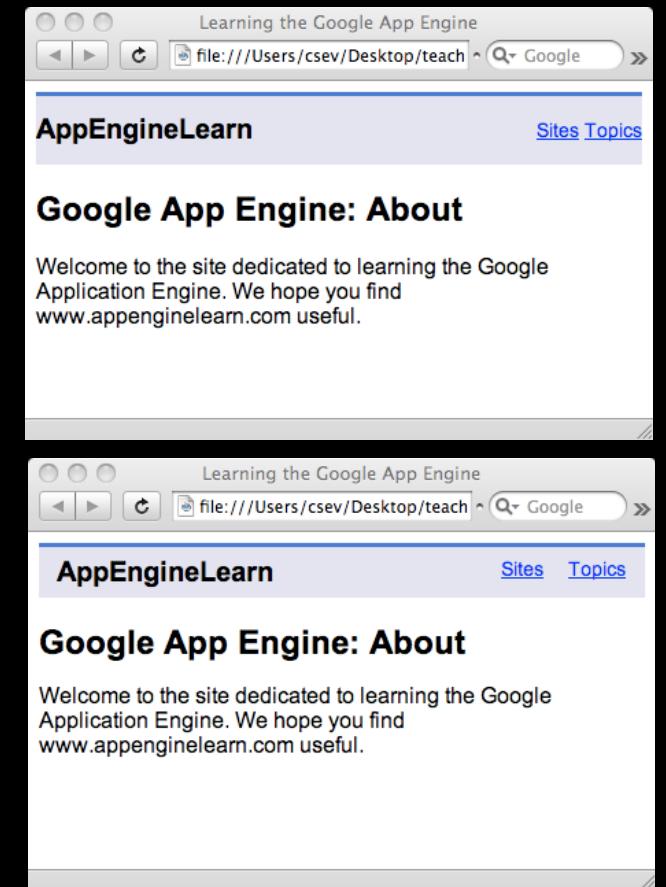
#header h1 {
    font-size: 20px;
    float: left;
    vertical-align: middle;
    margin: 0;
    padding: 0 0 0 .3em;
}

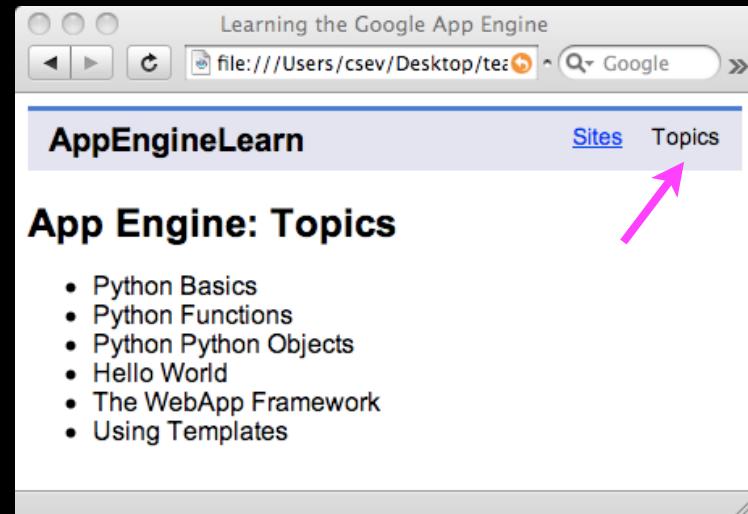
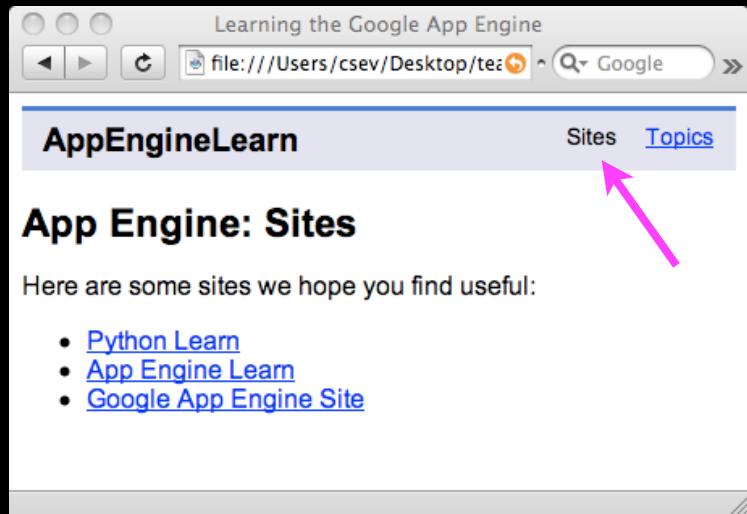
#header li {
    font-size: 14px;
    display: inline;
    padding: .5em;
}

#header ul {
    list-style: none;
    text-align: right;
    float:right;
    vertical-align: middle;
    margin: 0;
    padding: 0;
}

```

top, right, bottom, left



Giving Navigation Clues...

```

<div id="header">
  <h1><a href="index.htm">AppEngineLearn</a></h1>
  <ul>
    <li><a href="sites.htm" class="selected">Sites</a></li>
    <li><a href="topics.htm" >Topics</a></li>
  </ul>
</div>

```

```

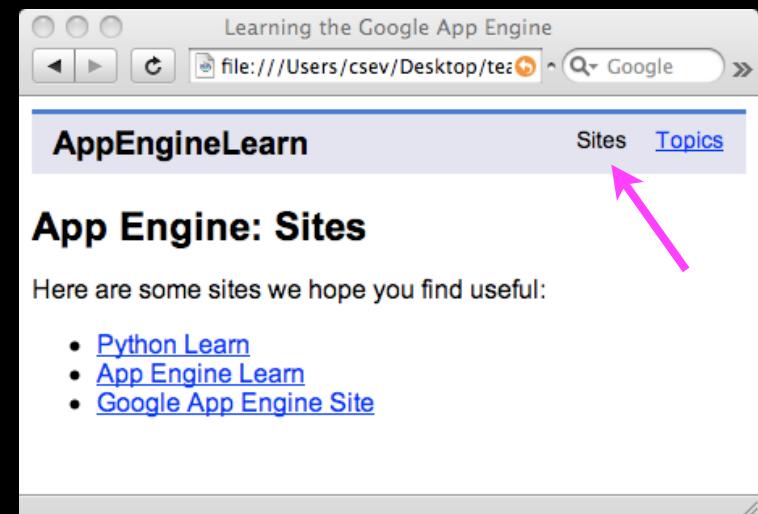
#header li a.selected {
  color: black;
  text-decoration: none;
}

```

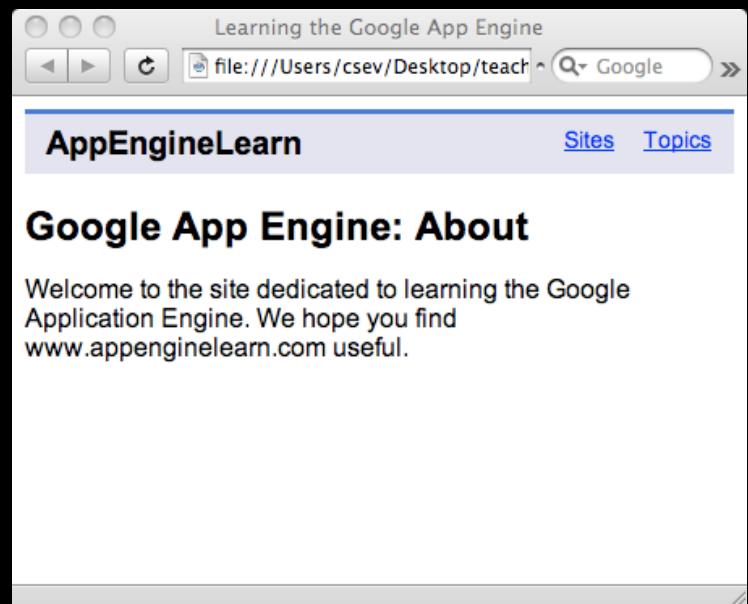
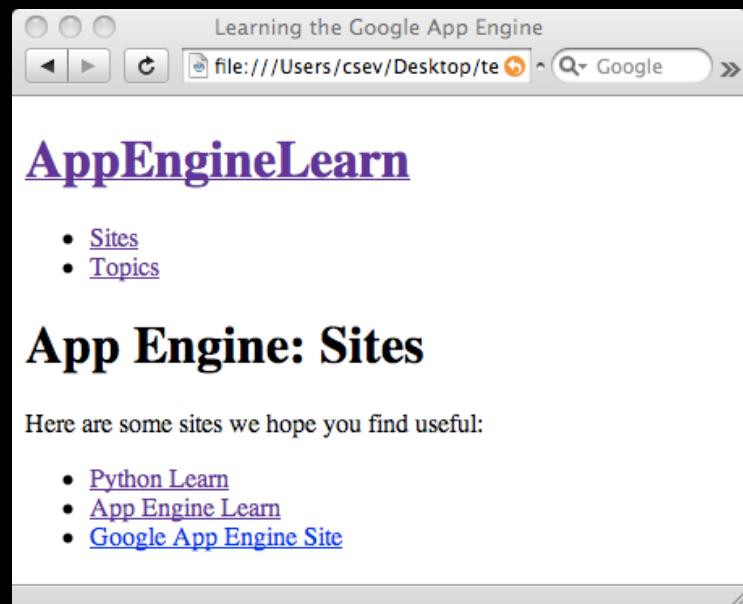
```

<div id="header">
  <h1><a href="index.htm">AppEngineLearn</a></h1>
  <ul>
    <li><a href="sites.htm">Sites</a></li>
    <li><a href="topics.htm" class="selected">Topics</a></li>
  </ul>
</div>

```



Transforming the look and feel of a page using a CSS style sheet.



CSS Validation

- You can validate your CSS to make sure it has no syntax errors
- Browsers will generally quietly ignore bad CSS syntax
- <http://jigsaw.w3.org/css-validator>
- The validator can save you time and sanity

 **CSS Validation Service**
W3C CSS Validator results for file:///localhost/TextArea (CSS level 2.1)

Jump to: [Validated CSS](#)

W3C CSS Validator results for file:///localhost/TextArea (CSS level 2.1)

Congratulations! No Error Found.

This document validates as [CSS level 2.1](#) !

To show your readers that you've taken the care to create an interoperable Web page, you may display this icon on any page that validates. Here is the XHTML you could use to add this icon to your Web page:

```
<p><a href="http://jigsaw.w3.org/css-validator/check/referer">
  
</a>
```



Zen Garden

- A social site where CSS designers show their “stuff”
- The HTML never changes - only the CSS
- Inspiration for us designers

DESIGN THEME IN GERMANY

THE BEAUTY OF CSS DESIGN
- ZENGARDEN -

A demonstration of what can be accomplished visually through CSS-based design. Select any style sheet from the list to load it into this page.

The Road to Enlightenment
Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible *DOMs*, and broken *CSS* support.
Today, we must clear the mind of past practices. Web enlightenment has been achieved thanks to the tireless efforts of folk like the *W3C*, *WaSP* and the major browser creators.
The css Zen Garden invites you to relax and meditate on the important



CssZenGarden
the beauty of css design.

A demonstration of what can be accomplished visually through CSS-based design. Select any style sheet from the list to load it into this page.

DOWNLOAD THE SAMPLE HTML FILE AND CSS FILE

<http://www.csszengarden.com/>

CSS Summary

- CSS Layout is its own art and science
- CSS Basics are well established and well supported in all modern browsers
- The box model is pretty straightforward - and allows nice design within the standards with reasonable effort levels.
- Site layout and markup is further evolving - mostly to make it increasingly possible to support desktop like experiences on the web.
- These innovations will naturally cause incompatibilities - which make things interesting and frustrating at times.